



**JOINT BATTLE DAMAGE ASSESSMENT
JOINT TEST AND EVALUATION**
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BACKGROUND PAPER

SUBJECT: Joint Battle Damage Assessment (JBDA) Joint Test And Evaluation (JT&E)

SPONSOR: Joint Battle Damage Assessment is chartered by the Director, Operational Test & Evaluation, Office of the Secretary of Defense and sponsored by the United States Army Training and Doctrine Command.

BACKGROUND: The JT&E program evaluates concepts and addresses needs and issues that occur in joint military operations. The JT&E program consists of three phases: (1) The Nomination – entry point to the JT&E program, (2) The Joint Feasibility Study – determine whether nominated studies are both feasible and necessary, and (3) the JT&E test itself. JBDA completed Phase 1 and 2 in early 2000, and was formally chartered as an OSD-directed JT&E in August 2000. The JBDA JT&E is co-located with the Joint Methodology to Assess C4ISR Architectures (JMACA) JT&E in a shared facility, Suffolk, VA. The JBDA JT&E is under the direction of Colonel James G. Diehl (USA).

Per Joint Publication 1-02, battle damage assessment (BDA) is the timely and accurate estimate of damage resulting from the application of military force, either lethal or non-lethal, against a predetermined objective. Battle damage assessment can be derived from the employment of all types of weapon systems throughout the range of military operations. BDA is primarily an intelligence responsibility with required inputs and coordination from operations, and is composed of physical damage, functional damage, and target system assessments.

An OSD sponsored Joint Working Group (JWG) developed the following Problem Statement. JWG membership included Service, combatant command, and defense agency representatives, as well as other BDA subject matter experts throughout the Department of Defense (DOD). The Joint Staff/J2-T, DOD's POC for BDA matters, approved the Problem Statement. (J2T is also the operational mentor for the JBDA JT&E.)

Study of the joint targeting process in support of the Joint Force Commander indicates that, while enhancements have been implemented, battle damage assessment still needs improvement to provide effective and timely assessments of fixed and mobile* targets.

PURPOSE: The purpose of JBDA is to improve BDA support to the Joint Force Commander in order to facilitate operational decision-making. Based on the Problem Statement, the following broad issues will be addressed by the JBDA JT&E.

* Mobile targets include maneuver forces as well as high-value relocatable targets such as SCUD TELs.

1. How much will changes in the *mobile target* BDA process improve support to the JFC?
2. How much will changes in the *fixed target* BDA process improve support to the JFC?

JBDA focuses on BDA reporting (task accomplishment) and the impact this reporting has on supporting key decision points (mission outcomes). The program is concerned with the ability to provide accurate BDA in time to support these decision points, and refining the process that produces them. The JBDA JT&E will:

- Identify, test, and assess current BDA processes and procedures; and recommend and evaluate enhancements.
- Characterize current BDA training and manpower authorizations for unified command, Service, and agency personnel and recommend and evaluate training improvements.
- Define system and architecture interoperability issues, and nominate and test fixes.

Measurements have been conducted during JT&E testing to determine the joint warfighter's ability to process and act on information. Emphasis has been placed on measuring the timeliness, accuracy, and completeness of actions required to perform BDA functions. Functions and terms are extracted from approved joint publications.

PROGRAM ORGANIZATION: The JBDA program is organized under the direction of a Joint Test Director supported by 16 military personnel, 34 contractors, and 1 government civilian.

TEST APPROACH: Under a four-year test schedule, JBDA observed a major exercise in 2001, established baseline measurements of the exercise in 2002, will test enhancements in the exercise in 2003, and write the final report in 2004. The primary test venue is the United States Forces Korea (USFK) Ulchi Focus Lens (UFL) exercise. Assignment of most JT&E personnel, military and civilian, occurred in 2001 as did the majority of test planning. Although UFL 02 was the baseline test, JBDA observed both UFL 00 and UFL 01. This observation served to facilitate the optimization of JBDA collection activities at UFL 02 and 03. Additionally, JBDA has tested training enhancements using contingency tests (CT) (Operations ENDURING FREEDOM and IRAQI FREEDOM) or mini-tests as applicable.

ACCOMPLISHMENTS:

- Hosted JBDA Joint Working Group in summer of 2000
- Hosted worldwide BDA Symposia in 2001 and 2002
- Developed perceived "as-is" BDA IDEF 0 models for NMJIC and USFK theater-wide BDA processes. NMJIC product provided to Joint Staff/J8 Strike-JWCA.
- Contributed to USFK and USCENCOM BDA CONOPS
- Completed *BDA Characterization Study* – examined BDA operations through Operations Desert Storm, Desert Fox, and Allied Force

- Briefed and secured support of Unified Commands, DOD agencies, and Services
- Completed the Joint Feasibility Study Report (JFSR).....Aug 00
- Reviewed Jt Pubs 2-01.1 and 3-60 as targeting and BDA SMEs.....Feb 01
- Observed Union Flash (Europe).....May 01
- Observed UFL 01 (Korea and Federated Partners).....Aug 01
- Observed Operation ENDURING FREEDOM (CT).....Oct 01
- Hosted first world wide BDA Symposium.....Jun 01
- Submitted Detailed Test Plan for UFL 02.....Jul 01
- Hosted first Senior Mentor Day.....Oct 01
- Hosted first GOSC.....Feb 02
- Submitted Program Test Plan (PTP) for approval.....Apr 02
- Submitted Data Management and Analysis Plan (DMAP) for approval.....Apr 02
- Submitted Operation ENDURING FREEDOM CT Report.....Jun 02
- Hosted second world wide BDA Symposium.....Jun 02
- Completed Baseline Test Event – UFL 02.....Aug 02
- Hosted second Senior Mentor Seminar.....Oct 02
- Observed Operation IRAQI FREEDOM (CT).....Mar 03
- Hosted second GOSC.....Mar 03

PLANNED ACTIVITIES:

- Conduct Enhanced Test Event – UFL 03.....Aug 03
- Host third world wide BDA Symposium.....Oct 03
- Host third Senior Mentor Day.....Fall 03
- Complete and deliver legacy products.....Fall 04
- Write Final Report/close-out ProgramDec 04

LEGACY PRODUCTS: Legacy products could include, but are not limited to, the following areas:

1. Documentation of the BDA process
2. New BDA tactics, techniques and procedures (TTPs) at combatant commands and the federated partners
3. Inputs to Joint Doctrinal Publications
4. Requirements for future technologies
5. Enhanced use of functional and systems analytical procedures
6. Improved use of existing BDA software tools and techniques
7. Better management of BDA trained personnel
8. Establishment of habitual relationships between combatant commands and Reserve augmentation units
9. Interactive web based or CD training and distance learning
10. Test data showing quantifiable improvement in BDA

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